

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

I. STATUS OF CLAIMS

Claims 1-19 and 21-23 are pending in this application. Claims 20 and 24-30 have been withdrawn in view of a Restriction Requirement. Claim 17 has been amended to now depend from claim 16 in order to provide proper antecedent basis to this claim. It is respectfully submitted that no new matter has been added by virtue of this amendment.

II. OBJECTION TO DRAWINGS

The Examiner objected to the drawings as failing to comply with 37 C.F.R. 1.84(p)(5) on the grounds that they include reference numeral "142" not mentioned in the description. It appears what the Examiner actually meant to say was that reference 142 is mentioned in the detailed description but not included in the drawings.

In response, the paragraphs beginning on page 8, line 22 and page 9, line 4 of the specification have been amended herewith to change reference numeral 142 to reference numeral 144 for referring to the logic means. Support for this amendment may be found throughout the specification as originally filed. In particular, it is especially clear from page 8, lines 22-24 of the present specification and figure 1A, that it was a typographical error to originally refer to the logic means as numeral 142 and that numeral 144 is indeed the correct numeral for referring to the logic means element.

The Examiner also objected to the drawings on the grounds that the reference numerals are cut off on Figure 1B. Applicants note that Examiner Austin informed the undersigned attorney during a telephone conference that the cutoff on Figure 1B was likely the resulting of a scanning error and thus to resubmit a copy of the drawing sheet containing Figure 1B as originally filed.

As per the Examiner's request, a copy of the drawing sheet containing Figure 1B as originally filed is being resubmitted herewith.

In view of the above actions taken, it is believed that the Examiner's objections have been obviated.

III. OBJECTION TO SPECIFICATION

The Examiner objection to the Abstract of the Disclosure on the grounds that it contains too many words.

In response, a new abstract in accordance with MPEP 608.01(b) is submitted herewith on a separate sheet in place of the prior abstract objected to by the Examiner. No new matter has been added by virtue of this amendment. Support for the new abstract may be found throughout the specification as originally filed and in particular on page 2, lines 21-26 of the specification.

In view of the above action taken, it is believed that the Examiner's objections have been obviated.

IV. 35 U.S.C. 112 REJECTIONS

The Examiner rejected claims 7 and 16 under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement. The Examiner alleges that the term "sprung logic contacts" is not defined in the specification.

In response, Applicants respectfully disagree with the Examiner's position. In particular, sprung logic contacts are clearly defined on page 9, line 4-7 of the present specification and clearly illustrated as reference numeral "146" in Figure 1A as being part of the logic means 144 (previously reference numeral 142 prior to this amendment). One skilled in the art based upon the present specification, drawings and knowledge in the art would clearly understand the full scope of the term "sprung logic contacts" as recited in claims 7 and 16.

For the reasons set forth above, withdrawal of the Examiner's rejection to claims 7 and 16 and the claims dependent thereon is respectfully requested.

The Examiner also rejected claim 17 under 35 U.S.C. 112, second paragraph on the grounds that the limitation "the logic device" lacks antecedent basis.

In response, claim 17 has been amended to depend from claim 16 in order to provide proper antecedent basis to the claim.

Therefore, withdrawal of the Examiner's rejection to claim 17 is respectfully requested.

V. 35 U.S.C. 102(b) REJECTIONS

The Examiner rejected claim 21 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,573,870 to Andrews ("the Andrews patent").

In response, Applicants respectfully assert that the Andrews patent fails to teach or suggest the presently claimed invention as recited in claim 21.

Specifically, at the very least the Andrews patent fails to teach or suggest the "means for applying a force to the means for providing engagement for locking the battery mounting in place in the device..., wherein the means for applying a force provides a load in an engaging direction of the at least one power contact.", as required by claim 21 of the presently claimed invention.

In contrast, the Andrews patent describes a battery pack assembly which has a removable housing which fits within a pocket. The pocket has electrical connectors mounted at a rearward wall. A slot is formed in the base of the pocket near the forward end. Shoulders are located near the forward end and spaced above the base. Further, a battery pack housing has electrical connectors located at its rearward wall that telescopingly fit with the electrical connectors of the pocket. The housing has a base with flanges on each side which engage the shoulders. In addition, the housing has a cantilevered resilient tab that is located between the

flanges. Moreover, the tab has a detent which snaps into the slot.

None of the elements described in Andrews is the same as the means for applying a force element recited in claim 21 and illustrated in Figs. 1 and 2 of the present specification. Rather, Andrews fails to describe a means or element which applies a force to its detent 37/slot 85 configuration for locking the battery mounting in place in the device, as required by claim 21. Nor does Andrews describe a means or element which provides a load in an engaging direction of the at least one power contact. Instead, the Andrews patent purports to describe a detent 37 which simply snaps into a slot 85 for holding the battery pack 10 from forward and rearward longitudinal movement relative to pocket 13, with no additional means or element (e.g. see figs. 1 and 2 of the present application) applying a force or load as required by claim 21. Andrews thus clearly fails to teach or suggest the means for applying a force element recited in claim 21.

It is well recognized that “to constitute anticipation, all material elements recited in the claim must be found in one unit of prior art,” *Ex Parte Gould*, BPAI, 6 USPQ 2d, 1680, 1682 (1987), citing with approval *In re Marshall*, 578 F.2d 301, 304, 198 USPQ 344, 346 (CCPA 1978). Since Andrews fails to teach or suggest each and every element of the presently claimed invention as recited in claim 21, for the reasons set forth above, a withdrawal of the above rejection to claim 21 is therefore respectfully requested.

VI. 35 U.S.C. 103(a) REJECTIONS

The Examiner rejected claims 1, 3 and 6 under 35 U.S.C. 103 as being unpatentable over the Andrews patent in view of U.S. Patent No. 5,935,729 to Mareno et al. (“the Mareno patent”)

In response, it is respectfully asserted that even if the cam actuated latch of Mareno were substituted for the cantilevered tab in the battery pack of Andrews, this proposed combination would still fail to teach or suggest all of the features recited in claim 1 of the presently claimed invention.

At the very least, the above proposed combination would fail to teach or suggest a lock for applying a force to a clip for locking the battery mounting in place in the device, and wherein

the lock provides a load in the engaging direction of at least one power contact, as required by claim 1. As mentioned above, Andrews fails to describe or suggest any means or element for applying a force to its detent37/slot 85 configuration for locking the battery mounting in place in the device, as required by the presently claimed invention. Further, as mentioned above, Andrews also fails to teach or suggest a means or element which provides a load in an engaging direction of the at least one power contact. Moreover, the Mareno patent fails to cure the above deficiencies of Andrews because the Mareno patent likewise fails to teach or suggest a lock for applying a force to its cam actuated latch or which provides a load in an engaging direction of the at least one power contact, as required by claim 1 of the presently claimed invention. **(See also Figs. 1 and 2 of the present specification)** Instead, by making the above proposed combination, what one skilled in the art would arrive at is the cam actuated latch mechanism of Mareno being partially housed within slot 85 of the Andrews device but without a lock element applying a force thereon, as required by claim 1. Thus, the proposed combination clearly fails to teach or suggest all of the features recited in claim 1.

For the reasons set forth above, withdrawal of the above rejection to claim 1 is therefore respectfully requested. Since claims 3 and 6 depend from and incorporate all of the limitations of claim 1, withdrawal of the rejection to this claim is also respectfully requested.

The Examiner rejected claim 2 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,573,870 to Andrews in view of Mareno and in further view of the American Heritage Dictionary of the English language ("clamp").

In response, it is respectfully submitted that there is no motivation provided by the prior art to one skilled in the art to make the above combination proposed by the Examiner. As mentioned above, neither the Andrews nor the Mareno patents teaches or suggests the specific lock element and its features recited in claim 1 of the presently claimed invention. As claim 2 depends from and incorporates all of the limitations of claim 1, the above patents likewise fail to teach or suggest the lock and its features of claim 2 as well. Further, there is also no teaching or suggestion in the American Heritage Dictionary definition for providing a clamp to a device such as the Andrews/Mareno device in the specific manner and for the specific purposes required by claim 2. Since the art mentioned above fails to teach or suggest

using the specific lock element in the required manner as recited in claim 2, there would likewise be no motivation to one skilled in the art to provide a clamp to the device of Andrews/Mareno as suggested by the Examiner. The above statement of lack of motivation is further supported by the fact that it is well known that conventional battery pack assemblies or cases such as those described in Andrews and Mareno use only spring clips to hold their batteries in place without accompanying lock elements, such as recited in claims 1 and 2. The presently claimed invention is an improvement of these devices because the conventional devices suffer from the disadvantage that their clips are not locked in place and if a spring fails the battery may become dislodged. (See page 2 lines, 10-14 of the present specification).

However, even assuming arguendo that there were motivation to make the above proposed combination, one would still not arrive at the presently claimed invention recited in claim 2. In particular, a clamp applied to the device of Andrews, as modified by Mareno, would produce a battery pack assembly having an accompanying clamp, wherein the clamp of the device would at the very least fail to provide a load in the engaging direction of at least one power contact, as required by the clamp of claim 2 of the presently claimed invention. The Examiner's attention is also directed to **Figure 2D** of the present specification which illustrates an example of how the lock element of the presently claimed invention recited in claim 2 provides a load in engaging direction of at least one power contact. A combination of Andrews, Mareno together with the accompanying clamp as proposed by the Examiner would clearly fail to produce the above required feature of claim 2.

For the reasons set forth above, withdrawal of the above rejection to claim 2 is therefore respectfully requested.

The Examiner also rejected claim 5 as being unpatentable over Andrews in view of Mareno and in further view of U.S. Patent No. 4,943,498 to Cooper et al. ("the Cooper patent").

As set forth above, the Andrews and Mareno patents each fail to teach or suggest a lock for applying a force to the clip for locking the battery mounting in place in the device and wherein the lock provides a load in the engaging direction of the at least one power contact, as required by claim 1. Since claim 5 depends from and incorporates all of the limitations of

independent, the above patents likewise fail to teach or suggest all of the features recited in claim 5.

Moreover, the addition of Cooper fails to cure the above noted deficiencies of the Andrews and Mareno patents. Specifically, even if one skilled in the art were to include the projections on the battery casing that fit into holes in the receptacle as described by Cooper with the battery pack as described by Andrews and Mareno in order to retain the battery pack in the electrical device, they still would produce a device which fails to include the specific lock element and its features recited in claim 5. For the reasons set forth above, withdrawal of the above rejection to claim 5 is therefore respectfully requested.

The Examiner also rejected claims 9, 10, 13, 15 and 18 under 35 U.S.C. 103(a) as being unpatentable over Andrews in view of Mareno and Cooper and in further view of U.S. Patent No. 5,707,249 to Byrd. ("the Byrd patent").

As mentioned with regard to claim 1, the Andrews, Mareno and Cooper patent combination fails to teach or suggest a lock for applying a force to a clip for locking a battery mounting in place in a device and wherein the lock provides a load in the engaging direction of the at least one power contact. Therefore, the above combination also fails to teach or suggest the specific lock element recited in claim 9 as well.

Moreover, the addition of Byrd fails to cure the above noted deficiencies of the Andrews, Mareno and Cooper combination. Specifically, even if one skilled in the art were to mount the plastic battery mounting as described by Andrews, Mareno and Cooper on a printed circuit board with openings for receiving the battery mounting as described by Byrd, they still would produce a device which fails to include the specific lock element and its features recited in claim 9.

For the reasons set forth above, withdrawal of the above rejection to claim 9 is therefore respectfully requested. Since claims 10, 13, 15 and 18 depend from and incorporate all of the limitations of independent claim 9, the removal of the rejection to these dependent is also respectfully requested.

Lastly, the Examiner also rejected claims 22 and 23 under 35 U.S.C. 103(a) as being unpatentable over Andrews in view of U.S. Patent No. 5,631,101 to Amero, Jr. ("the Amero patent").

In response, it is respectfully submitted that the above combination fails to teach all of the features recited in claims 22 and 23 of the presently claimed invention. As stated above with regard to claim 21, the Andrews patent fails to teach or suggest the means for applying a force to the means for providing engagement for locking the battery mounting in place in the device..., wherein the means for applying a force provides a load in an engaging direction of the at least one power contact".

The addition of Amero fails to cure the above noted deficiencies of the Andrew patent. Specifically, even if one skilled in the art were to apply the electronic smart battery circuitry described in Amero to the device of Andrews, they still would produce a device which fails to include the means for applying force as recited in claim 21. Since claims 22 and 23 depend from and incorporate all of the limitations of independent claim 21, the removal of the rejection to these dependent is respectfully requested for the reasons set forth above.

VII. CONCLUSION

In view of the actions taken, it is believed that all pending claims as currently presented are in condition for allowance. A notice of allowance is respectfully requested.

According to currently recommended Patent Office policy, the Examiner is requested to contact the undersigned at the telephone number provided below in the event that a telephone interview will advance the prosecution of this application. An early and favorable action is earnestly solicited.

No fees are believed due with this amendment. However, should the undersigned attorney be mistaken regarding whether any fees are due, then please adjust deposit account no.: 09-0466, accordingly.

Respectfully submitted,

Scott L. Appelbaum
Reg. No. 41,587
Harrington & Smith, LLP
4 Research Drive
Shelton, CT 06484-6212
Tel.: (203) 925-9400, ext.: 19

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date shown below in an envelope addressed to: Commissioner for Patents, P.O.

Box 1450, Alexandria, VA 22313

1/28/05
Date

Clair F. Mann
Signature of Person Making Deposit